Det Bel Isle & Windsr Ferry Co 61

THE MARINE RECORD,

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

VOL. IX No. 37. CLEVELAND, O., SEPTEMBER 15, 1887. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND.

The tug R K. Hawlew went on Smith's boxes for a new wheel

Captain B. C. Gray has been appointed to the command of the tug John Gregory.

Another steel steamer will probably be launched from the Globe shipyard in the early part of next month.

The Cleveland Shipbuilding Co. began laying the keel yesterday for one of the steamers for the Lackawanna Railroad Co.

The schooner C. H. Johnson went into Cleveland Drydock Co.'s dock to have bottom and topsides calked; the schooner Geo. W. Adams for general overhauling.

Sickness compels Captain A. W. Reed, of the propeller Roumania, to leave his boat. Captain Crampton, of St. Clair, Mich., will sail the Roumania for the present.

The propeller D. C. Whitney, which was ashore on Port Hope reef, has completed her repairs at the Cleveland drydock and departed, in command of Captain David Ingram.

Captain Thomas Wilson's next boat, the Yakima, will probably be launched in about two weeks. Her slip into the water has also been delayed somewhat on account of boilers and engine.

The new steamship Aurora is expected back from Buffalo in a day or two, and will go to the yard of the Cleveland Shipbuilding Co. to make connections between boilers and engines.

Mr. Radcliffe's next boat under contract for Captain Peter Minch and others, is already one-half in frame, and seems sure of completion on time, the opening of navigation next year.

Captain Del Moffat, who about four months ago had his leg broken, has returned to his tug, the S. S. Stone, although he is far from well. Messrs. Smith have done nobly by him during his months of suffering, in that they have continued to pay his salary as master of the tug. This accounts for the captain's eagerness to get to work.

Captain Vance, of Milwaukee, was at this port yesterday, after having made a trip to Buffalo, where he has been looking after the boilers for the new steamer Frank L. Vance, building at Mr. Wm. Radcliffe's shipyard for the Milwaukee Steamship Co. The latter is reported as nearly complete in every detail so far as woodwork is concerned. Boilers and engine have delayed the completion of the ship, but it is now probable that she will be launched one week from next Saturday.

Meteorological summary for the week ending September 14.

Mean barometer	30 07
Mean temperature	62.9
Mean humidity	73.0
Total precipitation, inch	.98
Prevailing direction of wind	E.
Total wind movement	1478
Av. cloudiness	7.4
Av. state of weather	Clo'dy
Max. temperature, highest	71.4
Min temperature, lowest	54 5

WILLIAM LINE, Sergt. Signal Corps, U. S. A.

Deputy Collector of Customs Owen Kane was at Lorain Monday on official business. He says that the wreckers on the steamer P. H. Walters, which foundered with a loss of several lives off that port, a short time ago, have succeeded in bringing the boat to a point abreast of the west pier and about 300 feet from the harbor. During the last storm they lost her chains and are still trying to recover them. Mr. Kane speaks of the boat's position in order to warn vessels entering Lorain at night, as bad weather will not allow lights to burn on the wreck.

Captain Peter July died suddenly at the Huron hospital in this city on the 12th inst. Captain July had just turned the steamer D. C. Whitney over to Captain Ingham to enable him to take command of Mr. Whitney's new steamer, building at Bay City.

Captain Wadsworth, of the schooner Geo. W. Adams, has brought his boat down to Fairport, and he is right in objecting to the statement that she lost her cabin in the gale on Lake Superior, as the Adam's cabin is below decks. The only damage to the boat, Captain Wadsworth says, was the washing away of one side of the pilot house.

Vessels were in active demand yesterday, and agents were able to offer but a part of the tonnage wanted, either for coal or ores. Rates were firm at former figures, and an advance was paid for a few loads. The showing as to charters was as follows: The steamer Kate Butteroni, coal, Ashtabula to Duluth, 85c; schooner Galatea, coal, Fairport to Duluth, 85c; schooner David Wagstaff, ore, Marquette to Detroit $2; steamer J. H. Outhwaite, coal, Buffalo pier shutes to Milwaukee, $1.25; schooners Fred A. Morse and Geo. H. Warmington, coal, Cleveland to Chicago, $1.25; schooner Constitution, ore, Escanaba to Cleveland, $1.65; schooner G. W. Cleveland, coal, Cleveland to East Saginaw, 65c: schooners Colorado and Lilly May, coal, Cleveland to Saginaw, 70c; schooners Jura and Reindeer, coal, Cleveland to Marquette, on contract; steambarge Point Abino, coal, Cleveland to Port Huron, 55c.

MILWAUKEE.

The steamer C. F. Curtis and barges, H. C. Holland, Isabel Reed, and T. S. Fassett, having finished their contracts, will go into the Menominee lumber trade with Tonawanda.

A Milwaukee exchange says an ore shipper at that place on Saturday offered to take the steamer W. H. Wolf for the remainder of the season at $1.75 per ton from Escanaba to Ohio ports.

The steamship Omaha was launched at the Milwaukee shipyard Saturday afternoon. She is owned by a syndicate of Milwaukee vesselmen, and cost about $80,000. She is 215 feet keel, 230 feet over all, 35 feet beam and 20 hold. She has a fore and aft compound engine, cylinders 22 and 40 inches, with 40 inch stroke. Her boiler is of steel 10 by 16 feet. She is built after the model of the Veronica with an unusually pretty stern. She is provided with all modern improvements including a Providence windlass. Her capacity is about 65,000 bushels of wheat. Captain Gibbs, one of her owners, will sail her.

The new steamship W. H. Wolf made the run from Escanaba to Detroit in 35½ hours, an average of 12⅓ miles.

The schooner Lewis Ludington reported lost Monday, has arrived at this port.

The propeller Rochester arrived here Tuesday morning towing the propeller Northerner, which she picked up twenty-five miles down the lake, disabled by a loose key. Repairs are being made here and she will continue to Chicago, for which port she is coal laden. This is the Northerner's first trip since she burned last year. She is also leaking.

SAULT STE MARIE.

Since the opening of the Sault canal in May, 6,136 vessels have passed through; registered tonnage 3 179,952; freight tonnage, 3,473,119. In May the number of vessels was 1,397; registered tonnage, 562,496; freight tonnage, 612,543. In June 1,423 vessels; registered tonnage, 849,789; freight tonnage 953,921. In July, 1,586 vessels; registered tonnage, 893,206; freight tonnage, 968,729. In August 1,780 vessels; registered tonnage, 872,461; freight tonnage, 937,926. The average daily number of vessels in August was 57 13 31; average freight tonnage 31,417; average number of passengers, 309 18 31. The excess for August over any previous month in the history of the canal was 5,197 tons of freight, 810 passengers. In August 7,050,000 feet of logs passed over the rapids.

LUDINGTON.

Special to the Marine Record.

Captain Jno. Stewart, of Cole & Holt's line, from Bay City to Alpena, has resigned command of the steamer Arundel, to take charge of F. & P. M. steamer No. 2. No. 1 will lay up in a few days to overhaul for winter service. D.

CHICAGO.

Special to the Marine Record

Several days ago the schooner Australia arrived here with a cargo of cedar and was seized for debt. While lying in Mud lake the vessel sprung aleak and sunk. The United States marshal is responsible, and will have to pump her out.

Davidson & Holmes, vessel agents, and Captain John Lang, have placed a contract with a Grand Haven shipbuilder for a new steambarge that is to cost $40,000. The boat will be 160 feet long, 31½ feet beam, and 12 feet hold, with carrying capacity for 550,000 feet of lumber. The engine will be a fore and aft compound cylinders, 20 and 36 inches, with 36 inch stroke. The boiler will be of the Scotch pattern, 11 by 11 feet. The boat is to be ready for sea March 25, 1888.

Grain freights were steady at 4 cents on wheat and 3¾ cents on corn to Buffalo and 3 cents on corn to Georgian Bay ports.

At Miller Bros.' shipyard the barge Fanny Neil was in dock for a new stem and calking; the schoonor Two Fannies for calking all over; schooner Ella Ellinwood for calking bottom; schooner Lincoln Dall to have a leak stopped; steambarge City of New York for new keel, keelsons, frames and bottom plank; steamer Puritan for a new wheel; propeller Conestoga to have wheel fastened and some calking; schooner May Richards for repairs to her stern, new bowsprit and jibboom; barge H. R. Newcombe for bottom calking; schooner Annie Sherwood to have a leak stopped; the schooner Radical received new cathead, jibboom and sprit sailyard; schooner Levi Grant a new mizzen boom; schooner Mercury a new jibboom.

Friday night last there was a heavy gale from the northeast which caused a big sea, and many vessels suffered thereby. Schooner Driver, with lumber from Muskegon, arrived in tow of a tug with her hold full of water. The schooner Emma C. Hutchinson, when entering the harbor in tow of a tug, parted her tow line, drifted down onto a barge and had her jibboom and foremast carried away. The schooner David Vance swung across the river when towing up and collided with the schooner Wallula and carried away the latter's jibboom and foretopmast.

The schooner May Richards, Captain Place, when coming up the river soon after midnight Friday night, near the Illinois Central bridge, in tow of one of the Dunham line tugs, was collided with by the schooner Jason Parker, also going up the river, in tow of one of the V. O. T. Co.'s tugs. The Parker crossed the bows of the Richards, twisted her stem badly and carried away her bowsprit and jibboom.

At the Chicago Drydock Co.'s dock the steambarge T. W. Snook was in for repairs to shoe and rudder; schooner Bay State for keelsons and bottom calking; tug Mentor for a new shoe and repairs to stern bearing; schooner Wallula received new jibboom, topmast and crosstrees; schooner Typo a new mizzen boom; steambarges Fayette, Manistique, and A. E. Wilds, barges Guiding Star, Empire State, schooners A. E. Holmes and Lizzie A. Law received minor repairs.

Captain Swanson, of the schooner T. Y. Avery, is hovering between life and death at the county hospital. His vessel was lying in Stetson's slip and he started to go aboard of her late at night. In passing through a lumber yard three men sprang from behind a pile of lumber and dealt him a blow on the head. He screamed for help and fell senseless. His assailants escaped. Robbery is supposed to have prompted the assault, although nothing was taken. The captain had a large sum of money in his pocket.

Last fall the schooner Elgin went ashore on Manitoulin island and was released by the steambarge Burlington. Frank Boden, owner of the Elgin, offered to pay the steambarge $300 for her services, but the owners demanded more, and have libeled the Elgin for $2,000. The courts will determine how much the job is worth.

The crew of the schooner W. H. Hawkins arrived here by rail, having left the vessel full of water at South Haven. Friday afternoon the Hawkins left Muskegon for Michigan City with a cargo of lumber. The sea was running high, and the vessel received such a severe straining that her seams opened and she filled with water. Her pumps had no perceptible effect on the inflow. At midnight she sunk decks to, with her bows buried in the sea, and her stern elevated so that the rudder was half above water. All hands were set to work throwing off the deck load. They had hardly begun when the vessel turned over on beam ends, and the deck load slid over the rail. This enabled the vessel to right herself and brought her bows up, but her cabin filled with water and the crew had to climb into the rigging. Saturday morning just as the crew were ready to go on shore in the yawl, the life saving crew at South Haven came to their assistance with a tug, and the vessel was towed into South Haven. Captain Nelson sent here for a tug and steam pump, but no Chicago tug can be spared.

The schooner Australia was tied up on a libel filed against her by W. H. Horn. Horn chartered the vessel to bring a cargo of cedar from Green Bay to Chicago, and his steamer towed her to the place where she was to load. After reaching there the captain of the Australia took a load from another party because he could get a higher freight. Horn demands pay for towing and the difference between the rate he chartered the vessel for and the rate he was obliged to pay another vessel that he chartered to take her place.

James Goodman has purchased the wooden steamer D. J. Foley, of Philadelphia, for $23,000 from John Miller, of Tampa, Fla. The boat was built at Baltimore in 1872. She is 154 feet long over all, of 348 tons register, and will be here in two or three weeks.

Schooner Flying Cloud is in trouble. She left Chicago last week, bound for Goderich with a cargo of corn. Captain Scott says he encountered heavy weather on Lake Huron and was driven sixty miles out of his course. The vessel lost nearly all of her canvas and had her centerboard broken. She made Point Edward and is leaking badly. H. J. Coon & Co., owners of the cargo, telegraphed permission to discharge the cargo at Port Huron. WILLIAMS.

MUSKEGON.

Special to the Marine Record.

D. N. Avery's new steam yacht Mascotte was inspected on Monday last by Messrs. Dodge and Scott, local inspectors from Grand Haven.

The Lake Side Works, carried on by David Burns, who for many years was an engineer on the lakes, and E. J. Rote and John Barry, do all kinds of marine work on short notice. They have facilities for doing all kinds of boiler and machine work.

H. J. Footlander, of old shipbuilding fame at this port, last week made an inspection of the tugs Commodore, John Barry, and Frank Geele, recently badly damaged by fire, on behalf of the owners and insurance companies, and his decision as to results gave entire satisfaction to all parties.

Captain Seth Lee, of well-known lake fame, and who is now running a ferry line of steamboats for the accommodation of passengers from North Muskegon, and is paving Muskegon streets, was presented by Mrs. Seth Lee with a fine nine-pound boy on the 4th inst, which we hope will be named after him, so that the name of Captain Seth Lee may never cease to live in Muskegon.

W. Jones and W. H. Welsh's gangs of lumber shovers have been doing excellent work and giving good satisfaction to the lumber barges they have been loading this season. WILLIAMS.

NEW STORM SIGNALS.

The significance of the yellow flag with white center, and the meaning of pennants, soon to be introduced, are fully explained in the following signal service order recently issued from Washington:

In view of the fact that the resolution of February 9, 1870, under which this service was organized, contemplated the announcement of the probable force as well as the advance of storms, the chief signal officer has decided to display signals with a view to distinguish between light and severe storms, and with the intention of showing whether the storm-center has reached or passed the display station as well as the probable direction from which severe winds are expected.

To adapt the signals to the varying interests of the maritime community the new system will take into consideration the fact that westerly winds of high velocity with clearing weather are less dangerous than those from easterly quarters with freezing weather.

Along the great lakes and on the Atlantic and gulf coasts, from September 1, 1887, there will be displayed, as storm conditions may demand, day signals of two kinds:

First—A cautionary signal, a yellow flag with a white center, will indicate that the winds expected are not so severe but well-found and seaworthy vessels can meet them without great danger.

Second—A storm signal (now in use), a red flag with a black center, will indicate that the storm is expected to be of more marked violence.

In order to afford the public as exact information as possible regarding the relative position of the storm and the winds expected, two pennants will be displayed.

A red pennant will indicate that the winds are to be easterly; that is, from northeast to south, inclusive, and that the storm-center is approaching.

The white pennant will indicate westerly winds; that is, from north to southwest, inclusive, and that the storm-center has passed. While it is intended that the pennant shall indicate positively only whether the winds will be easterly or westerly, yet, in order to give still more definite information, the red or easterly pennant will be displayed above the cautionary or storm signal for winds from the northeast quadrant, and below for winds from the southeast quadrant.

In like manner the white pennant, while indicating westerly winds alone, will show by its position above the cautionary or storm signal that northwesterly winds are probable, or by being below that they will be from the southwest quadrant.

In view of the difficulty of varying night signals, they will not distinctly show the force, but indicate the wind direction only; a red light for easterly winds, and red and white light for westerly winds.

The pennants have not yet arrived from Washington, and the signal officers are, therefore, using the old flags to indicate the direction from which storms will blow.

VALUABLE HINTS TO MARINERS.

The bureau of navigation at Washington has sent out a circular which contains the following valuable hints to mariners: "Watch carefully for the earliest indications of an approaching hurricane; constantly and carefully observe and record the barometer, thermometers, wind and weather. When one is evidently approaching, heave to, carefully make and record your observations every half-hour, or even more frequently; make every effort to find the probable bearing of the center, direction in which the storm is moving, and the semicircle you are in. Unless you heave to when thus observing the fall of the barometer and the shifts of the wind, you may be led to serious error; a fast steamer, for instance, may run into the dangerous side of a hurricane, and yet get shifts of wind characteristic of the navigable semicircle. Any attempt to cross the storm track is dangerous, but if you decide that it must be attempted, crowd sail, and keep the wind well on the starboard quarter. If obliged to lie to, always do so on the coming-up tack; in the dangerous semicircle this will be the starboard tack, the ship will head away from the center, and you should make all the headway you can; in the navigable semicircle it will be the port tack, the ship will head toward the center, and you should make as little headway as possible. In scudding always keep the wind well on the starboard quarter, in order to run out of the storm. So long as the barometer continues to fall the center is getting nearer; when it steadies and begins to rise this marks the nearest point, and here the shifts of wind will be most sudden and violent and the sea highest and most confused. If, when lying to, the wind begins to shift in the opposite direction to what it did at first, it is evident that the storm track is recurving, and your semicircle is changed; immediate action must be taken to suit the new conditions. But if your vesel is making any great headway it may give you a shift of wind contrary to what you would have if lying-to; this must always be borne in mind. Cool weather is characteristic of the navigable semicircle, owing to the indraft from the northwestward; warm weather, on the contrary, indicates the dangerous semicircle where the air is drawn in from the southeastward. There are two cyclone currents to be considered—a current moving in a circular direction around the center caused by the wind, and a current which follows the storm along its track. These vary considerably with different storms, but should always be taken into account when near the coast. The testimony as to the great value of the use of oil in heavy seas is so conclusive that it is now recognized by every commercial nation. No ship can afford to neglect its use in an emergency when heavy, broken seas threaten to come on board. Once tried, its value will never be disputed."

Subscribe for the MARINE RECORD.

COMPARING THE THISTLE AND THE VOLUNTEER.

A New York naval architect makes the following comments on the two famous yachts: "There is one thing in the Thistle's design that is a wide departure from former designs of Watson's and that is in the longitudinal position of her displacement center, and, in his opinion, it will be against her in beating to windward in a head sea and a strong breeze. It may be an advantage to her in smooth water and light breezes. It is at least three feet aft of the center of the load water line, and in strong breezes there will be a kick in her on that account more than in either the Genesta or Galatea. Her head sails look to be of a medium size; the forestaysail is larger than on most of the large sloops, on account of carrying the forestay some seven feet farther forward, in fact, just what she overhangs forward. Take her sail plan right through, it is simply immense for a cutter of her width. In appearance she is more American than English. She overhangs both forward and aft, and she looks very neat, especially aft. Her counter is thinner than any of the sloops in this country; there is hardly enough of it to finish into anything like a stern. She is as fair as can be. If her canter of gravity is enough lower than it is of American designs, why, brute strength, or, in other words, an enormous increase of power may make up for what she lacks in the geometry of her form. Lead and canvas are what sails nowdays, not the good designs, for most all the improvements that have been made in the single stick vessels since the time of the Puritan are—an increase of canvas and a lower center of gravity. The Mayflower was improved by putting more weight on her keel, and by doing so it lowered her center of gravity which gave an increase of speed or power, which is speed. In the sloop Atlantic, adding twelve tons to keel gave same result. Now comes the Volunteer; her center of gravity is lower than the Mayflower's She has also a larger area of canvas, which gives greater speed, and she is superior in construction to any single sticker in this country. The question is asked, can Burgess beat himself? Of course he can. Some naval architects think one would not have to be governed so much by the shape of the vessel as by the shape of her geometrical centers. Design a sloop of the same weight, length and breadth, a lower center of gravity, and sail area in proportion to the increased power given, and she would beat the Volunteer so sure as the sun rises and sets. This generation will never see the limit of the vessel's speed. Builders will keep improving in the construction as they did in the Volunteer. She is several tons lighter than she was desiged, and why can't another be built some tons lighter than she is? Construct the hull lighter and put these tons into the keel. This will give a lower center of gravity, consequently more power. Her sail area can be increased in proportion to the increased power, and you will have more speed, even off the same form as the Volunteer. So it is power and not form that is to be considered most. Increase the power and not increase the weight, the same form will go faster; if it does not a man can lift himself by his boot straps."

HOW TO BE A SAILOR.

Having decided to be a navigator, if a boy has nothing else, let him at least start with the consent and blessing of his parents or guardians, and then go to work with the determination of becoming nothing less than the captain of a ship.

At the outset, it would be a good idea for a boy to go on one of the United States training ships, where young Americans are trained to be seamen. He must be between fourteen and eighteen years of age, and he will not be entitled to his discharge until he has gone through the whole course of instruction.

If our would be seafarer pursues this course, he will find it to his advantage should he start life on a European steamer. Still, he would be possessed of a great deal of knowledge in reference to naval warfare which, in that position, would be of no use to him, and there would be very much that he would have to learn, in addition to what he already knew.

Starting as an ordinary seamen, he would skip the drudgery of a ship's boy, and his promotion would be somewhat more rapid, though not remarkably so, for on the sea you have to be thoroughly competent in one position before you can rise to a higher.

Of the four officers on an ocean steamship the two senior officers keep the reckoning of the ship by observation, that is, by means of the stars, the moon, and the sun. The third and fourth, or two junior officers, keep the dead reckoning. By this is meant the calculation of the ship's position, independently of celestial observations.

The pay of the captain of an ocean steamer will be from two thousand five hundred to three thousand dollars a year. The first officer will receive about nine hundred dollars a year, the second seven hundred and twenty, the third and fourth four hundred and eighty dollars a year. This will be in addition to living expenses on board ship.—*St. Nicholas for September.*

Ex-Justice Frederick F. Campau, of Springwells, has invented and patented a two-wheeled vehicle for traveling on water. There are two wheels, each fourteen feet high and twenty inches wide. Between them is an axle and a shaft, and extending to the rear of it about sixteen feet is an oblong contrivance, to which is fastened a float for steering purposes. The wheels are hollow. For two feet around the edges they are encased with canvas, thoroughly calked, and will not draw with the weight of twelve persons more than eight inches of water. The whole will be driven by a one-horse power engine. Mr. Campau claims that his "marine vehicle" will travle at the rate of one mile a minute. Last summer he tried a small one on the river, and it was a complete success. His patents cover the United States and Canada. The first trip will be made by eight persons up the river around Belle Isle and back to Springwells, on Saturday, September 17.

Most commendable enterprise has been shown by the publishers of the Illustrated London News in the establishment of headquarters at No. 237 Potter building, New York, and the issuing of an American edition of that standard publication. An examination of the American reprint shows it to be in all respects up to the highest standard of artistic excellence, and the success of the venture seems assured from the outset. The illustrations of famous war and merchant ships are perfect in execution and for this reason alone the new publication would be of great interest to marine readers.

To close the Estate
OF THE LATE
SAMUEL L. WATSON,
THE FOLLOWING VESSELS
Are Offered for Sale.
Stmr, ST. LOUIS, a2,
Schr, CHAMPION, a2,
do JAS. D. SAWYER, a2,
do POTOMAC, a2.
do VOUGHT, a2
do S.L. WATSON, a2 1-2
For Particulars, and Where Vessels can be seen for Inspection, write to
Henry W. Watson,
16 White Bldg., Buffalo, N. Y.

WARD AND JACKSON, SHIPSMITHS.
All Kind of Forgings, Bolts and Truss Rods for Building.
49 Main-st Cleveland

STEAMBARGE FOR SALE.
This is one of the finest steambarges on the lakes, and was built in 1884. She is in good condition in every respect, serviceable, easy to load and unload, and a great favorite. She can not be duplicated for the same money. Her dimensions are 131 feet keel, 143 feet over all, 23.4 feet beam, 8.4 feet depth of hold, and is classed A1½ by Inland Lloyds. She carries two masts. Her carrying capacity is 400 to 425 tons or 14,000 bushels of wheat, or about 240,000 feet of lumber on a dratt of 9 feet 9 inches. Her engine is high pressure 18x20 and her boiler 6½x12 feet of 7-16 Otis steel. Speed 10 miles loaded or 11½ light.
Address MARINE RECORD, Cleveland, Ohio.

WINDLASS FOR SALE.
The undersigned have a Hadfield Patent windlass or a one and three-eighths inch bar chain for sale cheap. JOHNSON & BATES,
227 Erie St., Racine, Wis.

TUG FOR SALE.
Length over all, 52 feet; beam, 13 feet; depth of hold, 5 feet 8 inches; net tonnage, 7.38. Engine, 10x12; upright steel boiler. One year old, and in first-class order. Address,
JAS. LAIRD, Ashtabula Harbor, O.

WANTED.
We have a customer who wants to purchase a small steambarge. Address, stating price and terms, THE MARINE RECORD Cleveland, O.

ROBERT E. HILLS,
57 & 59 North Wells St., Chicago, Ill.
Telephone 3321.
STEAM FITTING AND HEATING,
Wrought Iron Pipe & Fittings
ENGINEER'S SUPPLIES.
General Jobbing Work Done Promptly,
Also, Proprietor of North Side Brass Works.

CAPT. GEO. A. SIMPSON,
Compass Adjuster,
COMPASSES, BAROMETERS, PATENT LOGS AND MARINE GLASSES REPAIRED,
Schooners can have their Compasses Adjusted for Local Attraction at the time of repairs by stating how much they are out on East or West Courses, and which way it leads, Nor or South of above Courses
161 River St., Cleveland, O.

DETROIT & CLEVELAND.
STEAM NAVIGATION CO.,
BETWEEN
CLEVELAND & DETROIT,
MACKINAC ISLAND, ST. IGNACE,
ALPENA, SAND BEACH,
PORT HURON, ST. CLAIR,
OAKLAND HOUSE, MARINE CITY
Special Sunday Trips
BETWEEN CLEVELAND AND DETROIT
DURING SUMMER MONTHS.
For full information, rates, tickets, etc., apply to E. B. WHITCOMB, Gen. Pasgr Agt., Detroit, Mich, T F. NEWMAN, General Agt, Cleveland, O.

Travelers Information Bureau,
224 Bank St., CLEVELAND O.
Where may also be found a full line of ocean tickets
THREE HOURS LAKE RIDE EVERY EVENING
Except Sunday. Cleveland Lighterage Co.'s steamer
AMERICAN EAGLE,
Leaves foot of Superior street at 7:30 p. m., returning at 10:30 giving three hours on Lake Erie. Fare, only 25 cents. No liquors allowed on board. Music for dancing by Prof Balas Orchestra,
H. R. ROGERS Manager. T. F NEWMAN, Pres't.
Special lake rides every Saturday afternoon at 3:30. Fare 25 cents.

LAKE SHORE & MICHIGAN SOUTHERN

Commencing Monday, May 16, 1887. The time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*2 55 A M	*2 55 A M
No 8, N. Y. B & A Express	*8 30 A M	*3 55 A M
No 26, Elyria Accommodation	†7 45 A M	
No 24, Buffalo Ac'm via Sandusky	†10 05 A M	†10 15 A M
No 24, Toledo Accom via Norwalk	†10 05 A M	†10 15 A M
No. 10, New York & Boston, "Flyer"		*11 35 A M
No 12, N Y & B Fast Express	*2 20 P M	2* 45 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 40 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*12 15 A M	*12 15 A M
No. 23, Cleveland Express	*2 15 A M	
No 3, Chicago Express via "	§5 20 A M	5 35 A M
No 25, Mich Accom Norwalk		†5 35 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	*10 50 A M	*10 55 A M
No 9, Chi Pac Ex via Norwalk	*6 15 P M	*6 40 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:15 a. m. and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, § daily, except Monday.

A local Cleveland and New York sleeper, also sleeper for Boston, and dining car daily on No. 10, leaving Cleveland at 11 35 A M.; arrive Grand Central depot, New York, 7.30 a. m.

For full information as to trains and connections apply at the Union ticket office, corner Bank and Superior streets, under Mercantile Bank.

M. E GAUL, City Passenger Agent.
A. J SMITH Gen'l Pass. Agt., Lake Shore Block

WILLARD & FILLEY,
[SUCCESSORS TO R. L. WILLARD]
SHIP AND ORNAMENTAL PAINTERS.
DEALERS IN
LEAD, OIL, MIXED PAINTS, GLASS, PUTTY, ETC.
All Kinds of Steamboat and Vessel Work a Specialty.
FINISHED LIBERTY CAPS FOR STEAMERS ALWAYS ON HAND.
57 Main Sreet, cor. Elm, Cleveland, Ohio.

THOS. DREIN & SON,
BUILDERS OF
METALLIC LIFE BOATS
and LIFE RAFTS of all classes Government and Pleasure Boats of Wood. Block Cork Life Preservers. Sole manufacturer of Capt. JONATHAN CONE'S celebrated
Patent Life Rafts
Tatnall-st and Railroad. Wilmington Del.

DETROIT BOAT WORKS.
BUILDERS OF
STEAM AND SAIL YACHTS, RACING SHELLS AND HUNTING CANOES
SOLE MANUFACTURERS OF
Clark's Patent Metallic Life Rafts and Wooden Life Boats.
YAWL AND ROW BOATS of all sizes in stock. Steam and Hand Steering Wheels made to order. SHOPS, FOOT DEQUINDRE ST., DETROIT, MICH. TELEPHONE No. 1154

H. D. COFFINBERRY, PRES'T. ROBERT WALLACE, VICE PRES'T. WM. M. FITCH SEC'Y.

THE CLEVELAND SHIP-BUILDING COMPANY,

Detroit and Center Streets, Cleveland, Ohio,

IRON SHIPS,

Marine and Stationary

ENGINES AND BOILERS,

Blowing Engines and Steam Hammers,

AND MILL GEARING AND CASTINGS.

We take pleasure in announcing that we have purchased the property, business and good-will of the Cuyahoga Steam Furnace Company, and will add to these works, so long and favorably known, a first-class Iron Ship-building Department, with sufficient room and all modern facilities for building two large vessels at the same time, and a Boiler Shop with most approved tools for large work, including Tweddell's Hydraulic Plant for flanging, riveting, etc.

We have associated with us Messrs. H. D. Coffinberry and Robert Wallace, late of the Globe Ship-building Co., and the Globe Iron Works, and Wm. M. Fitch, late of the Winslow Line of Steamers. We have made the following appointments: Mr. O. N. Steele, Assistant Superintendent; Mr. Thomas W. Bristow, late foreman of Wyandotte Ship Yard, Superintendent of Ship Yard; Mr. Quincy Miller, Superintendent of Boiler Shop; Mr. John Stoney, Superintendent of Foundry, and Mr. Jas. C. Wallace, Draughtsman.

We purpose building Iron and Steel Vessels of all descriptions, Marine and Stationary Engines and Boilers, Blowing Engines, Steam Helve Hammers and such other work as our large assortment of patterns eminently qualify us to build, at a minimum price.

Your patronage is solicited, and we trust that the excellence of our work, with fair dealing and strict attention to business, will secure its continuance.

THE CLEVELAND SHIP-BUILDING COMPANY.

GOULDS AND AUSTIN.

CENTRIFUGAL PUMPING MACHINERY.

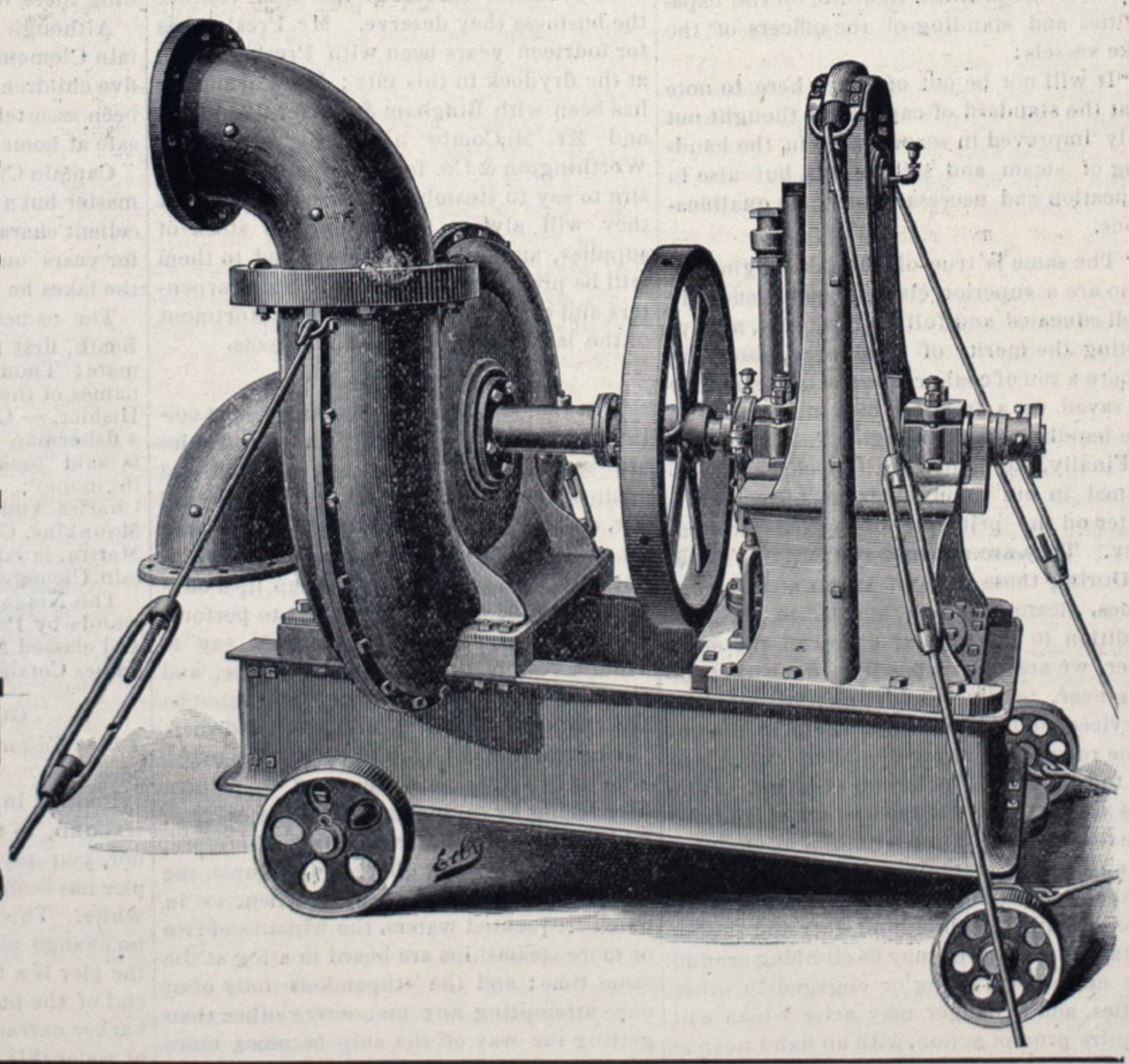
Manufacturers of the Finest Wrecking Pumps in the World.

Full Line Always on Hand.

GOULDS & AUSTIN

167 & 169 Lake-st.,

CHICAGO, ILL.



Cleveland Dry Dock Co,

Shipbuilding, Drydocking, Repairing and Spar Making.

CLEVELAND. OHIO.

MARINE REPORTER AT THE STRAITS.

Reports of Passing Vessels a Specialty.

Messages Delivered to Passing Vessels Day or Night, Weather Permitting.

MY ICE REPORTS MAY BE RELIED ON.

SEVENTEEN YEARS EXPERIENCE

The Patronage of the Marine Public Respectfully Requested--Charges Reasonable.

F. J. STIMPSON, MACKINAW CITY MICH.

Established in 1859.

HENRY LEOPOLD.

Manufacturer and Dealer in all kinds of fine and plain

FURNITURE & UPHOLSTERY,

And Manufacturer of Counters, Shelving, Bank and Bar-room Fixtures.

Mattrasses and Vessel Furniture

A SPECIALTY.

Warerooms 798 and 800 Lorain-st., near Fulton. Factory 10 Willet-st.

CLEVELAND, OHIO.

Scott's New Coast Pilot

Corrected for Additions and Changes to the Opening of Navigation in 1887,)

IS SOLD BY

SHIP CHANDLERS

AND BY THE PUBLISHER,

GEORGE SCOTT,

AT 162 LARNED E.. ST., DETROIT, MICH

Moiles Tug Line.

Sault Ste. Marie, Mich.

Office on WATER ST., 5th door from Canal Park.

Tugs Tom Dowling, Frank Tracy and Laura Gibbs.

All kinds of Tug Work Done with Promptness and Dispatch. Tugs and Lighters Always in Readiness.

RAFT TOWING A SPECIALTY.

Correspondence Solicited.

ENRIGHT & HARDY'S

Tug Line, Pathfinder and S. J. Christian.

THE TWO LARGEST TUGS HERE.

Office 19, Madison St., Toledo, O.

HARBOR TUG MOLLIE SPENCER.

ENGINE, 20 by 24, Port Huron, Mich. For light wrecking this tug has the most complete outfit on the lakes. Supplied with steam ejectors, capacity of 32,000 gallons per minute, hawsers, steam pumps, diving rigs, blocks etc., just the outfit for waterlogged and sunken boats, at cheap rates. River and harbor towing. Telephone, telegraph,

LYNN'S TUG OFFICE.

AN IRON MINE FOR SALE.

This mine is on the shores of Lake Huron, close to a good harbor. First-class ore, assayed 70 per cent pure iron. This ore is said by experts to be much better than Lake Superior iron ore and the only ore of its kind so far discovered on this continent capable of making Bessemer steel. Will sell outright, on shares or a royalty. Specimens of ore furnished and inspection of mine solicited.

Also, two silver mines on Lake Superior, close to a good harbor. Specimens furnished. Apply to

MARINE RECORD, Cleveland, Ohio.

Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building] Cleveland, O.

A. A. POMEROY, EDITOR AND PROP'

BRANCH OFFICE:
252 South Water Street, Chicago, Illinois,
THOMAS WILLIAMS, Associate Editor.

TERMS OF SUBSCRIPTION:
One year, postage paid.....$2.00
Six months, postage paid..... 1.00
Invariably in advance.

THE MARINE RECORD can be found for sale by the following news dealers:

CLEVELAND, O.—G. F. Bowman, corner of Pearl and Detroit Streets.

Evans & Van Epps, Superior street, Cleveland.

R. A. Castner, 254 Detroit street, Cleveland.

ASHTABULA HARBOR, O.—C. Large.

CHICAGO, ILL.—Joseph Gray, 9 West Randolph Street.

CHICAGO, ILL.—H. B. Hansen, 33 West Randolph Street.

BUFFALO, N. Y.—Miss McCabe, Elk Street, near Ohio.

Charles McCready & Co., No. 14 E. Seneca St.

Mrs. Mary Jannigan, on Michigan St. Swing Bridge.

DETROIT, MICH.—N. F. Stewart, Ft. of Woodward Av.

STAR ISLAND, ST. CLAIR FLATS, MICH—McNiff & Son.

DULUTH, MINN.—C. F. Johnson, 323 West Superior Street.

MARQUETTE, MICH.—J. A. Vannier.

ESCANABA, MICH.—Wm. Godley.

ESCANABA, MICH.—George Preston.

SARNIA, ONT.—D. McMasters.

OWEN SOUND, ONT.—J. Sharpe, Jr.

KINGSTON, ONT.—F. Nisbet, corner Brook and Wellington Streets.

Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, O., THURSDAY, SEPT. 15.

JUSTICE TO ENGINEERS.

To the Editor of the Marine Record:

I have been a constant reader of your paper for some time, and it looks to me as though it were published in the interest of steamboat captains. Everything is captain. Now, I would like to ask you and the reading public, who is the most trusted officer on a steamboat or railroad? My impression is that the engineer is. If he goes to sleep what is the result? A steamboat engineer is down in his engine room all alone. The captain, when he gets outside, may turn in and leave the boat in charge of his second mate or watchman, and if anything is troubling them they call the "old man." When the engineer has the whole of that property in his hand, with the least mistake, probably, great damage to life and property is done. The engineer has no one to help him in case of heavy weather. He is up day and night, climbing around his engine, constantly on the alert; and still you claim the captains do it all. I often see in the papers the account of such a boat, or Captain So-and-so having made a fast run or trip. Now, between you and I and the public, the captain had nothing more to do with the speed of that boat than you who print the item referring to it. The credit belongs right in the engine room and fire-hole.

There is a movement on foot among lake engineers, at the present time, to demand equal pay, and that similar respect be shown to them as captains receive. The position is more responsible and laborious than a captain's, then why not give us at least as large a salary? In all probability the vessel owners will hear more on this subject before many months pass.

If you do justice to the engineers they will know it, and show how they appreciate it; but if, on the other hand, you make light of his position, and give the credit which justly belongs to him to the captains, then it naturally follows, that his feelings toward you will be none of the best. Hoping to see a copy of this letter in your next issue, I remain, respectfully,

MARINE ENGINEER.

Although we have heretofore rigidly adhered to our rule of refusing to publish correspondence that is not accompanied by the writer's true name, we, in this instance, suspend the rule in order to convince "Marine Engineer" that while he demands justice for marine engineers, he has not, in his communication been willing to accord justice to the MARINE RECORD. Notwithstanding the statement that from his asserted close reading of this journal, he does not find justice for marine engineers, he has made several statements which are not borne out by fact. In holding that the RECORD is "all for the captain and nothing for the engineer, he does us gross wrong, and in order to convince him of his error we have but to refer him to the files of the MARINE RECORD, which can always be found at this office. We will take the trouble to cite a few instances wherein the engineer gets more credit for quick runs than is asked for in his communication. In several instances we have taken the dailies to task for giving all the credit of a quick run between ports to the master when it should be given to the engineer after the steamboat is outside. That is where his merit commences. As we understand it the captain's merit consists in being a good navigator, a good man of business, to have the qualifications of preserving discipline on his vessel, to take advantage of every circumstance to enable him to load and discharge cargo in the shortest possible time, and to thoroughly understand the rules of navigation, and those for the government of pilots. Under these qualifications he is supposed to be fully responsible for his vessel and the ability of the officers. If the vessel is lost the blame is cast on the captain.

The responsibilities of the engineer are quite as onerous and his duties great. If he, like the captain, is not equal to them, he will not long retain his position, but, like the captain, will be called on to give place to others. He must be a thorough mechanic, know how to manipulate his machinery so as to give the highest possible results. If his engine gets out of order his resources must teach him how to remedy the evil. He must know how to take apart and set up his engine, and innumerable other qualifications must be in his possession which can only be acquired by study and experience.

In the foregoing paragraphs we have dealt with "Marine Engineer's" complaint in a general way. It is now our purpose to particularize, not in order to defend the RECORD against charges made without foundation but in order to prove by facts which can be produced at any time that the MARINE RECORD is not published in the interest of one class of officers, but in the interest of the entire marine industry, builders, owners, masters, engineers, assistants, mates, sailor men and the great branch who manufacture and produce and sell marine goods and supplies, the necessities of river and harbor improvements, and of proper facilities for speedy loading and discharge of cargoes. In specifying, in order to refute the charges of "Marine Engineer that the RECORD is entirely devoted to the captains, who, we must say, take more interest in supporting the RECORD than any other class of officers engaged in lake marine, we will refer our correspondent to the issue of July 21, 4th page, 3d article in 3d column; 1st page, 2d paragraph from bottom of 1st column; 5th paragraph same column; June 16, 1st page 3d paragraph; May 19, 1st page 1st column, last parapraph, and innumerable other instances. In fact, wherever a test of speed is made, if the engineer's name is known to us, he invariably gets the credit.

In the last report of the commissioner of navigation, published at Washington, we find the following article, written by the editor of the MARINE RECORD, on the capabilities and standing of the officers of the lake vessels:

"It will not be out of place here to note that the standard of captains is thought not only improved in seamanship in the handling of steam and sail vessels, but also in education and necessary business qualifications.

"The same is true of the lake engineers, who are a superior class of men, generally well educated and full of resources, always noting the merits of machinery, observing where a ton of coal or a pound of steam may be saved, or a fraction of a mile gained in the handling of their engine."

Finally, we contradict the charges contained in our anonymous corresbondent's letter on the principle of justice and honesty. They are not true and will not stand.

During these days of steam steering engines, steam windlass, and steam hoists in addition to the regular duties of the engineer, we are not disposed to deny that the engineer, to give to his charge his best services, should have more help in the engine room. Our correspondent would lead us to believe that he has no assistant. If he has not the owners of the boat are at fault, for the reason that it is impossible for an engineer to answer the captain's signals at all times without an assistant and oftentimes without two. While the chief is off duty and the assistant in charge, he may be climbing around the machinery, oiling or engaged in other duties, and a danger may arise which will require prompt action, with no hand near to answer to the bells, and before the engineer in charge can gain the throttle a serious disaster may occur. Foreseeing cases like this many of our best found steamboats have a corps of three engineers. This, it seems, is as it should be, and we trust the time will soon come when every steamboat owner will see the advantage of having more help in the engine room. This question was advanced at the last annual national convention of the Marine Engineers' Beneficial Association, but was not carried to result. If it has been proposed by the Brotherhood of Lake Engineers we do not know it. If a law to this effect is adopted by the supervising inspectors it will be well, but in any case it will increase the number of licensed engineers, and will possibly have its influence on wages. This last phase has already been considered. Samuel G. Fairchild and Edward Marsland, local inspectors of steam vessels, New York City, writing to the captain of the American Brotherhood of Steamboat Pilots, says: "In view of the large increase in the number of licensed officers since the law authorizing fees was abolished, it is deemed desirable to know what probable effect, if any, such increase has had upon the wages paid to such officers.

"Please get the opinion in writing of the various branch associations and also the expression of the members of this one, and transmit the same to us at as early a date as practicable.

"The average annual gain in the number of licensed officers throughout the United States since the fees were reduced and finally wholly abolished is 1,522, while the average annual gain previous thereto was only 876."

If the ocean and river service for licensed officers has but increased in the same ratio that it has on the lakes this is not more than a natural increase, from an average of 876 to 1,522. The lessons to be learned from this inquiry are two-fold viz: 1st, that under the abolition of license fees many officers who had been able to secure berths, from friends, without license, had under the new regime, applied for and secured licenses; 2d, in the event of a new class of licensed officers being established there will be more competition for places, and wages now paid will, in consequence be lowered unless the strictest relations of brotherhood are adopted and enforced.

As regards the respect to be shown to the different officers of a vessel, that is a matter which devolves on the individual. If the master has character and individuality sufficient to command more respect than the chief engineer he gets it and vice versa. This is still an open question, and we would like to hear from other engineers, but desire that they send along their names, not for publication, but as a matter of good faith.

MESSRS. C. H. PRESLEY, H. F. Parmenter and C. E. McCombs have joined interests in manufacturers supplies and machinery, carpenters, machinists and shipbuilders tools, engine and boiler supplies being a specialty, under the firm name of C. H. Presley & Co., office and works 24 South Water street Cleveland, Ohio. The gentlemen composing this firm are all young men of practical experience in the various departments and will doubtless secure in this new venture the business they deserve. Mr. Presley has for fourteen years been with Presley & Co. at the drydock in this city; Mr. Parmenter has been with Bingham & Co. for five years, and Mr. McCombs has been with Geo. Worthington & Co. for four years. They desire to say to steamboat men especially that they will always find a complete stock of supplies, and all orders entrusted to them will be promptly attended to. Ship carpenters and calkers will also find an assortment of the latest and best makes of tools.

THE London Nautical Magazine says collisions happen in fog, not because the rules are wrong, but because, in spite of and against the rules, masters of steamers will not, on hearing a signal, simply get the way off their vessels and then proceed cautiously, but will instead continue to keep up a dangerous speed, and will attempt to perform some manœuvre in order as they say to avoid a vessel, the position, distance, and course of which are unknown, and cannot be ascertained until she "is in sight;" and then, having got into collision, they will try to excuse themselves on account of their own blundering by saying the rules are wrong, which they have not read, and, therefore, which they have not obeyed. Of course, the danger is greatly augmented when, as in much frequented waters, the whistles of two or more steamships are heard in a fog at the same time; and the stupendous folly of at once attempting any manœuvre other than getting the way off the ship becomes more apparent.

THE propeller J. C. Gilchrist, recently launched at Trenton, measures 1827.39 gross and 1395.75 net tons. She is the largest vessel added to the merchant marine of the country during the week ended September 10th.

DR. L. D. HUDSON, 51 Atwater building never fails to cure the most aggravated cases of PILES with little or no pain and without loss of time from business. Sufferers should give him a call.

OUR enterprising correspondent Charles Burmeister, at Frankfort, Mich., was presented with a daughter, the first born, August 28th. The entire family is doing well.

LOSS OF THE SCHOONER NIAGARA.

During the disastrous gale that swept down Lake Superior from the northwest on the 7th the schooner Niagara, of Cleveland, foundered in seven fathoms of water, and her entire crew of ten men and Captain Clements, were drowned. The disaster was reported at the Sault when the steamship Australasia in whose tow the Niagara was passel through the canal on her way to Lake Erie. The Australasia left Ashland with the Niagara in tow on the 5th. Both were bound for Ashtabula. The Niagara was laden with 1,400 tons of iron ore. Some say that she was overloaded. Tuesday after weathering Keweenaw Point the wind freshened up in the northwest, and kept increasing in violence until it had developed into a furious gale. During the gale the Australasia and her consort labored heavily and at 11 o'clock Wednesday morning the tow line parted. They were then ten miles above Whitefish Point and about fifty miles above the Sault. Just as the Niagara broke adrift a furtous blast of wind struck her and blew the foresail and mainsail clear out of the ropes. With no canvas to steady her she fell off into the trough of the sea. For an instant she lay on her starboard side with her lee rail under water, and the waves sweeping over her, and then she was lifted on the crest of a mighty wave. As she righted, there was a loud crash, and her lofty spars toppled over, tearing up deck and crushing the bulwarks as they fell into the sea.

The crew of the Australasia witnessed the breaking up of the vessel, but were powerless to render any assistance. They saw Captain Clements with his men around him, trying to chop away the wreckage. At the same time it was seen that the yawl was being made ready and was soon after launched but it was impossible for it to live in the sea that was running at the time and soon after capsized. Shortly after the men took to the yawl the vessel sunk. She lies in seven fathoms of water, ten miles this side of Whitefish Point and five miles from shore. Her mizzen mast just reaches above water, and her main and foremasts are floating near with other pieces of wreckage. Captain Waite of the United Empire, who passed through the wreckage saw no traces of any of her ill-fated crew and believes that all were lost. He states that though not many miles from the shore and the Whitefish Point life saving station no small boat could have lived in the terrible sea which was running there Wednesday.

Although reports were current that Captain Clements family, consisting of wife and five children were aboard the Niagara, it has been ascertained that they were not, and are safe at home in this city.

Captain Clements was not only an efficient master but a man of pleasing address and excellent character and habits and had sailed for years on the lakes. Before coming to the lakes he had been a sailor on salt water.

The names of the mates were John McBeath, first mate; William Quinn, second mate; Thomas Prince was steward. The names of the rest of the crew were A. L. Hishler, — Conners, John Martin, son of a fisherman on Beaver Island, and who it is said took out with him about $200 in money; Robert Rayne, an Irishman; Charles Anderson, Prussian, and Steven McMannkins, Canadian. The young man, John Martin, is said to have been a cousin of Captain Clements.

The Niagara, 726 tons, was built at Tonawanda by Parsons in 1873, valued at $30,000 and classed A2. She was owned by Captain James Corrigan and was insured for $25,000.

GODERICH LIGHTS.

To the Editor of the Marine Record:

GODERICH, September 12.

I notice in the last issue of the MARINE RECORD, in referring to the Goderich harbor, you say that the light on the north pier has been changed from fixed red to fixed white. This is a mistake, as there has been no change made. The light on the end of the pier is a fixed red light, and on the inner end of the pier is a fixed green light. The harbor entrance has been dredged to 17 feet of water this summer, so that vessel masters can depend upon 16 feet at present. The lights range nearly east and west, so that any stranger can have no difficulty in making the harbor by following these directions. The piers are 200 feet wide.

By inserting the above in your paper you will convey valuable information to strangers coming to this harbor.

T. N. DANCEY, Harbor-master.

OBITUARY.

CAPTAIN PETER JULY.

One of the oldest and most respected vessel masters passed quietly away on Monday night, at the Huron street hospital. Captain July has been troubled with diabetes for a number of years and the disease culminated on Monday. Captain July, has been in the employ of D. C. Whitney, for about twenty years and leaves behind an unbeaten record of success as master of lake craft. As Captain July, has sailed on the lakes from boyhood, few men are better known. His first command was the brig Mayflower, in 1857 and since that date he has steadily gained promotion, until at the time of his death he had been appointed to the command of Mr. Whitney's new steamboat, at Bay City, turning over the command of the steamer D. C. Whitney, to Captain Ingbram. A notable fact in regard to Captain July's career on the lakes, is that he has never lost a vessel and if we except the slight trouble to the steamer D. C. Whitney, he has never had any mishap. He was eight years in command of the steamer Glasgow, owned by Mr. Whitney, and up to his death had been master of the D. C. Whitney, for about five years. His life and character have been pure, and he is spoken of in the highest terms of praise by owners and shipmates as a master. He leaves a wife and four children—two daughters, both of them married, and two sons, one living in Chicago and one sailing with him in the Whitney. His remains have been taken to his home for burial.

LAKE FREIGHTS.

At quotations freights are firm and tonnage in active demand. The moderate supply of tonnage is a prominent factor in preventing grain rates from breaking under the dullness now prevailing in shipping circles in the east. At New York accommodation on berth for grain had only a limited show of attention despite a reduction on rates.

ORE.	
Escanaba to Chicago	1 00
Escanaba to Ohio ports	1.65
Marquette to Ohio ports	2.00
Ashland to Ohio ports	2.45
Two Harbors to Ohio ports	2.50
GRAIN.	
Wheat, Duluth to Buffalo	5½c
Corn, Chicago to Buffalo	3¾c
Wheat, Chicago to Buffalo	4c
Wheat, Milwaukee to Buffalo	4c
Wheat, Detroit to Buffalo	2¾c
COAL.	
Buffalo to Milwaukee	1.25
Buffalo to Chicago	1.25
Buffalo to Duluth	90c
Cleveland to Milwaukee	1.00
Cleveland to Chicago	1.25
Cleveland to Duluth	1.00
Erie to Duluth	1.00
Erie to Chicago	1.25
Erie to Milwaukee	1.25
Erie to Escanaba	75c
Sandusky to Ashland	1 00
Sandusky to Washburn	1.00
Sandusky to Milwaukee	1.10
Saudusky to Racine	1.10
Toledo to Ashland	1.00
Toledo to Washburn	1.00
Toledo to Duluth	1 00
Toledo to Milwauke	1.10
LUMBER.	
Bay City to Tonawanda	$2.75
Bay City to Ohio ports	2.50
Saginaw to Tonawanda	2.87
Saginaw to Ohio ports	2.50

AHOY! MARINERS!

The beacon light, which guides you safely in the harbor of pecuniary advantage is the Boston Dry Goods firm of *Kohn & Co.*, 213 Detroit st., near corner Pearl st., Cleveland, O., established since 1866 in this city, informing you of our specialty in supplying vessels with ☞ *Comfortables, Blankets, Table linen, etc* and that we *sew to order* at *shortest notice* ☜ *Sheets, Pillow cases*, or any necessary equipments for bedding.

☞ We are also pleased to inform you that we are the *only* manufacturers in this city who retail direct to consumers, none but *our own genuine home-made* ☞ *Flannel Shirts, Waterproof Shirts, Scarlet Flannel Undershirts* and *Drawers, Overalls, Jean Pants*, etc., or ☞ *make them to order* ☜ for the same price we sell them ready-made. ☞ All our Shirts are 52-inch wide, 36-inch long, extraordinarily well sewed. ☜ The *Custom Cutter*, associated with our merchant tailoring department offers to make *Gents' finest Cassimere, Broadcloth Suits*, in the *latest style*, guaranteeing the best fit and fine workmanship ☞ *for $8 less* ☜ than any other merchant tailor, because he has *no Rent to pay, does his own cutting*, and wants *to advertise himself*. Kohn & Co., 213 Detroit st., near corner Pearl, Cleveland, O.

[*Around the Lakes Continued from 1st Page*]

SAND BEACH.

The life saving crew at Point Aux Barques telegraphed that the schooner Mona is a total wreck near their station. The crew were all rescued by the life savers. The shore north of Port Hope for miles is strewn with lumber which was washed off the deck loads of passing boats that were caught in sudden storms.

BUFFALO.

The propeller Westover, which was libeled for $448.20 on behalf of John F. Lebron, of Baltimore, was released by Marshal Donahue, the claim being paid. She went into drydock to be examined as to the injuries she received when she went ashore on Ford river.

Smith, Davis & Co., on behalf of the Phœnix and Western insurance companies, have settled the loss on the stranded schooner I. N. Foster. Captain Danahy, her owner expresses himself as well pleased with their promptness.

There are no new developments in the fight of the grain shovelers' union against the rebate system. President Bloomer, of the Western Elevating Association, being in New York.

The Buffalo Commercial Advertiser says: "The indications at present are that the Welland canal, upon which the Canadian government has spent so many million dollars, and from which so much was expected, will soon fall into a condition of innocuous desuetude. The Commercial recently commented upon the fact that Welland canal tug men were complaining bitterly on account of the light business through the canal this year. The situation is getting worse instead of better for them.

O'Grady & Maher are building at their yard on the Erie canal a steam yacht for Samuel M. Sloan, to be 60 feet long and 10 feet 6 inches beam. She will be furnished with engines with 10 by 12 inch cylinders. The same firm is building for John Johnson and others a harbor tug, the mate of the Buffalo, which will have an engine with 20 by 22 inch cylinders.

Captain John Green has gone to Milwaukee to look over the new propeller which was built at Wolf & Davidson's yard, with the intention of buying her.

J. J. H. Brown, the vessel agent, has returned from his wedding trip, which was spent in New York.

The Express says: Much interest is still shown by marine men in the elevating rebates which were lately the cause of a strike by the shovelers at the Coatsworth elevator. It is not claimed that this abuse is new, and some maintain that it has been practiced only in a small way by elevators that could not get their share of the work otherwise. Of course the elevator owner is not interested, for he gets his percentage in the pool whether his house does any elevating or not, but the scoopers attached to the elevator get nothing unless there is work done. So the boss has sometimes paid a percentage for vessels and taken it out of the men's wages. This has been from 25 to 50 cents per 1,000 bushels, but when the boss of the Coatsworth paid $1, as is reported, the men struck. Other rebates have been paid. Brokers report that they have been obliged to pay them in order to get vessels changed from one elevator to another that they might secure dispatch. This goes to the consignee, and a leading elevator man said that several grain receivers do their work apparently for nothing, for they are allowed no direct percentage for handling grain, but they live on the rebates they get. A vessel owner states the same case, as he understands it, in a very different way. These people, he says, are paying out money in rebates in various ways and then stealing grain by shortages to make themselves whole. But as the elevators are not the most interested parties in the matter, this shot does not hit the mark very squarely. President Bloomer of the Western Elevating company said that he could not see why the company should do anything. He thought the scoopers would straighten it out themselves. The scoopers report that President Canny will inspect all bosses' books every Monday and thus detect the rebates if made.

The schooner Iron State labored wearily in Wednesday's storm while coming down and shipped considerable water. The elevator rejected part of her cargo, said to be about 865 bushels, on account of being wet. At last accounts Captain M. J. Galvin and Captain J. J. H. Brown were surveying her. The damage will not amount to a general average.

The bins are being rapidly put into the new Dakota elevator. An addition of 52 men has been made to the force, which amount to about 200, and more are wanted. As the elevator is now in the pool there is no need of her doing business, and she has not taken any cargoes lately.

Carroll Bros.' sand scow was raised by Maytham's tugs Tuesday. It has been sunk about two months in the outer harbor. It could not be raised by pumping and had to be dragged into the Erie basin on the bottom.

ALPENA.

Up to this time the schooner Ayer ashore off Rogers City, has not been released. The tug Leviathan is at work at her. The weather being clear the prospects for her release are favorable. The crew were all rescued. The propeller which was reported on Sturgeon Point proved to be the propeller W. L. Wetmore, ore laden, bound from Ashland for Ashtabula. She was released during the night and went down. The schooner Alpena, cedar laden, went on Sturgeon Point Saturday morning. She is still on and in bad condition.

FRANKFORT.

Special to the Marine Record.

Wednesday we experienced a lively northwest blow. The passenger propeller Sanford found it too heavy, and returned to port for shelter. Others followed, comprising the propeller Lawrence, and schooners Experiment, Anna Hanson, Sea Gem, Joe Duvall, Lydia Roesser, A, B. C. F. M. and Napoleon, who all found refuge from the gale.

During the height of the storm it was announced that the Frankfort life-saving crew would drill with the surf-boat, out in the boiling breakers, and a crowd gathered to watch what seemed to be an impossibility. Keeper Matthews launched the new six-oared Beeby surf boat, and, with his crew, undertook the herculean task of forcing a passage through the raging element. The harbor piers were being deluged by huge breakers, and, smothered in foam, the boat shot outside, but despite their efforts she was forced back, and again the second time the huge seas would dash her about like a cockle shell, bending oar locks, unshipping oars, etc., and finally she returned to the station. Keeper Matthews was determined to get through, and ordered out the old Buffalo boat with five oars, and with every muscle strained, and carefully acting under the keeper's orders, this boat was forced through and remained out in Lake Michigan over an hour before landing which was also safely accomplished. It was a fair test of the merits of the two surf boats.

United States lighthouse supply steamer Dahlia, Commander Clark, was sheltered in Frankfort harbor several days the past week. She is a trim looking craft, and well kept up.

Friday's northeast gale caused the grain-laden schooner H. Taber, Lillie Pratt, Burt Barnes, Minnehaha, Geo. Wescott and the old schooner Harriet Ross to run here for shelter. The Harriet Ross is credited with being one of Commodore Perry's war vessels that fought the battle of Lake Erie in 1814. How the story originated it is hard to say. Her register in the report of the custom house shows that she was built at Buffalo in 1854, but built up from the bottom of the old ship Trenton. The question is where was the Trenton built?

BURMEISTER.

DETROIT.

Special to the Marine Record.

The tug Challege has returned from the wreck of the steamship Algomah, lost off Isle Royal, Lake Superior, in 1885. She brought back many relics from the scene of the disaster, beside removing the cargo of the wrecked steamer. She will go at once into the A. H. Mills line of tugs and will be ready for towing through the rivers with the tugs Shoo Fly and Dave and Mose of the same line. Captain David Hoose will command her.

All efforts to secure the yawls, stolen from the schooner Hoboken August 13 have proved unsuccessful. Any person giving any information will receive $10 at Mills' tug office.

The Sassacus, which arrived up Friday, had a narrow escape from sinking while off Kingsville, in Lake Erie. She was leaking badly, and the crew were kept at the pumps two whole days. She went into the drydock here.

Captain Darius Cole and Captain J. W. Millen unite in a challenge to the owner of the little steamer Mary for a race between either the steamer Darius Cole or the Greyhound and the Mary over the course beween Detroit and Port Huron or any other from $1,000 to $5,000 a side and the championship of the Detroit and St. Clair rivers.

John Stevenson & Co. have chartered the steamer Nellie for the remainder of the season for general freighting purposes.

The Canadian privy council has passed an order to admit from England into Canada free of duty the engine for the steamer being built at Deseronto to run in connection with the Chicora across Lake Ontario.

The steamship Iron King, which stranded near Grosse Pointe Sunday night, was released by the ferry Sappho. The steam ship had on a cargo of 2,014 tons of iron ore, and was greatly overloaded. About 190 tons of her cargo were lightered off by the schooner Fleetwing, after which she was pulled off by the Sappho. No sooner was the immense craft released than she swung around and went on the Pointe broadside. Again she was released by the Sappho, and almost immediately struck bottom. At this the captain of the Sappho got mad, and after another hard pull he towed the steamship into deep water and she proceeded down. The Fleetwing has discharged the iron ore at Hurley's dock.

GRAND HAVEN.

Special to the Marine Record.

Captain T. W. Kirby is building a very handsome steambarge of the following dimensions: 180 feet keel, 195 feet over all, 35 feet beam, 13 feet depth of hold. She will have a fore and aft compound engine 43 and 23 by 36 inch stroke, and a boiler of steel 10 feet shell, 16 feet long. She has very strong keelsons and frames and some of her ceiling and outside plank are already on. She will be very strongly built of 6 and 7-inch flitch, 21 inches from centers, 17½ inches deep on the keel, 16 inches deep on the bilge, 7 inches on the top, ceiling 6 inches throughout, bottom plank 4 inches, bilges 6 inches, topsides 4 inches, all edge-bolted. She will also have two steel bands around her 4½ by 5/8ths.

The steambarge W. H. Pickands is getting new cylinders, which are being supplied by S. F. Hodge & Co., Detroit.

Henry Bloecker & Co. are building a high-pressure engine, 18 by 20, for a steambarge, building for R. C. Brittain, at Saugatuck by James Elliott; a high-pressure engine 24 by 26 for the steambarge Tempest; a high-pressure engine, 24 by 28, for a passenger and freight steamer, building at South Haven by John Martell, of Saugatuck, for Henry Williams, of Benton Harbor. During the present year they have built engines for the steambarge Alice M. Gill, 22 by 26; Thos. R. Scott, 20 by 22; steamer Saugatuck, 18 by 20; steambarge A. D. Hayward, 24 by 26, and steamboat McCormick 18 by 20.

The Grand Haven Shipbuilding Co. are building a fishing tug, 50 feet over all, 13½ feet beam, 6 feet depth of hold, for Hobeck & Van Zantun, of Grand Haven.

WILLIAMS.

SANDUSKY.

A terrible accident occurred on board the scow Kate Grant Saturday morning while she was lying at anchor off Marblehead. A heavy blow came up and it was thought best to seek shelter. All hands went to the windlass to hoist the anchor, and while thus engaged one of the windlass clamps broke and a handspike in the hands of Captain John Grant flew back with terrific force, striking him on the foreheed and mashing his skull. Death was instantaneous. Captain Grant was about twenty-five years of age. The scow is owned by his father, ex-sheriff Reuben Grant, of Ottawa county, who lives at Ward's canal, a short distance from Port Clinton.

Henry Lay has bought the tug Buffalo for $12,000 cash.

PORT HURON.

Special to the Marine Record.

The tug W. A. Moore, Captain H. Arms, was coming down Lake Huron the 9th and sighted the W. L. Wetmore, aground on Sturgeon Point. She let go her tow of four vessels and went and pulled off the Wetmore. The latter picked up her consort and went on her way all O. K.

The barge C. L. Hutchinson arrived here, in tow of the steamer Missouri, in a waterlogged condition. She is now unloading her deck load of lumber, and will be pumped out and proceed to Buffalo.

B. Whittaker and A. N. Moffat have purchased the schooner Midland Rover, a Canadian vessel, but by some fine figuring she will be registered under the United States flag as the Philo Scovill, which was her name before she was made a Canadian boat. Price paid, $7,500 cash.

The Mineral Rock tow passed here in a bad condition; the Bolton was full of water, the McDougal had lost her mast and deck-load, the Sweepstakes also minus part of her deck-load and was nearly full of water.

The steambarge Mackinac was in Dunford & Alverson's drydock for a new stern-bearing.

The Emma B. Maxwell arrived here last Sunday, in tow of the tug Castle. She was bound from Chicago to Collingwood with a cargo of corn. When off Duck islands she was struck by a squall which took the mainmast off at the deck. The foremast and mizzenmast were broken off below the masthead; her jibboom was broken off a foot from the bowsprit, and she drifted from the Ducks to abreast of Port Austin, where the tug picked her up. She is not leaking to amount to anything.

H. C. Breckenridge has been appointed manager of S. B. Grummond's dock at this port, vice E. J. Kendall resigned.

Captain Dave Hutchinson has been appointed master of the steamer Conneaut.

VESSEL OWNERS AND AGENTS.

H. J. WEBB & CO.,

hip Brokers, Vessel Owners and Agents.

[ESTABLISHED IN 1856.]

H J. WEBB & Co., will charter Vessels for Lake Trade pecial attention given to Chartering Vessels in the ake Superior Iron Ore Trade, both for the season and ngle trip.

RCADE BUILDING, 101 ST. CLAIR ST.,

Room 27. Cleveland, Ohio.

TELEPHONE { Office, No. 338. Residence, No. 1328.

WARNER & BECKER,

Vessel Agents and Brokers,

ROOM 10,

Arcade B'ld., 101 St. Clair St,

CLEVELAND, OHIO.

J. J. H. BROWN. EDWARD SMITH

BROWN & CO.,

Ship Brokers and Agents.

Special Attention given to Surveying, Appraising and Settling Marine Losses.

Exchange Building, 202 Main-st., Buffalo, N. Y.

ALEX McDOUGALL,

VESSEL AGENT AND BROKER,

Duluth.

Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at **Duluth, Agate Bay** (new iron ore port), **Port Arthur, Washburn, Ashland,** and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

PALMER & BENHAM,

Vessel Owners & Agents,

New Bank Building, corner of Superior and Bank Street, Cleveland, Ohio.

MOORE, BARTOW AND GILCHRIST,

Ship Brokers and Agents,

No. 101 St. Clair Street, Room 15.
CLEVELAND, - OHIO.

JAMES T. ROSE,

Vessel Agent and Broker,

Room 4, Exchange Building, Duluth, Minn.
I have an excellent gang of Trimmers this season, Captain Miller's old Crew.
Special Attention Paid to Chartering Vessels, and seeing that they get dispatch in Port.

CORRESPONDENCE SOLICITED.

THOS. WILSON

MANAGING OWNER

Wilson's Transit Line.

Gen. Forwarder. Freight and Vessel Agent.
CLEVELAND, O.

JOHN P. DEVNEY,

Marine Collector.

Collections Promptly Attended to.

ASHTABULA HARBOR, OHIO.

PROCTORS IN ADMIRALTY.

Removal!

William H. Condon,

MARINE LAWYER,

240 La Salle cor. Jackson st.

CHICAGO, ILL.

ROBERT RAE,

Admiralty and Insurance Law Office,

Room 37 Merchants' Building, CHICAGO, ILL.

WM. H. DeWITT,

Attorney and Proctor in Admiralty.

ROOM No. 6, BLACKSTONE BLOCK.

CLEVELAND, OHIO.

GEORGE E. HALLADAY.

Attorney and Proctor in Admiralty.

Marine Business Promptly Attended To.

OFFICE 21 BUHL BLOCK, DETROIT, MICHIGAN.

CAPT. ALEX. McFARLAND.

Iron Ore Trimmer and Contractor,

ASHLAND, WIS.,

Has a large gang of men, and is in a position to give prompt attention to all orders intrusted to him.

SATISFACTION GUARANTEED IN EVERY RESPECT

C. A. KING,

General Stevedoring. Discharging Loading and Ore Trimming Promptly Attended to. A Large Force of Men always on Hand. Information in regard to

DEPTH OF WATER OF ALL DOCKS IN

ASHLAND HARBOR

gladly furnished. Quick dispatch guaranteed. Patronage Solicited.

C. A. KING, Ashland Wis.

Grummond's Mackinac Line

Stmr. Flora,
W. E. Comer, Master,
Leaves TOLEDO every Tuesday at 9 a. m., City time,

Stmr. Atlantic,
J. R. Jones, Master,
Leaves CLEVELA'D every Friday at 9 p. m., City time,

For Mackinac, St. Ignace, Cheboygan, Alpena, Oscoda and way ports. For Freight or Passage apply to
ANDERSON & BATES, Agents,
Dock Foot of Superior street, Cleveland, O.
S. B. GRUMMOND, Owner, Detroit, Mich.

A. J. MORSE & SON.

DIVING APPARATUS

140 CONGRESS ST. BOSTON.

HULL'S RUBBER STORE.

SPECIAL GRADES OF

WATER AND STEAM HOSE

FOR MARINE USE.

Steam Packing, Gaskets, Valves, etc., etc.

Rubber clothing, boots & shoes.

E. W. HULL,

237 Superior-st, CLEVELAND, O

Send for Price List.

CANVAS OIL BAGS
for use on board
Vessel and Steamer
to lessen the dangerous effects of heavy seas. Write for pamphlet.

M. H Dodge & Co., 24 Broadway, Cleveland, O

GEORGE SAAL'S SON.

Copper-smithing of all Kinds.

VESSEL WORK A SPECIALTY.

403 and 405 Detroit-st., corner Duane-st..
Telephone 1638. CLEVELAND, O.

MARTIN MULLEN, Agent,

DEALER IN

Youghiogheny & Massillon Coal

DOCKS AT GOVERNMENT PIER AND RIVER BED SLIP.

Office, 81 Perkins Building, East Side of Main Street Bridge, CLEVELAND, OHIO.

Telephone No. 2701.

BOATS COALED DAY OR NIGHT.

Marine Glasses
AND
Barometers!
Spring import just received at

L. H. SOLOMONSON'S, Optician,

252 SUPERIOR ST., CLEVELAND, O.

DAVID BARNHISEL, Agent.

DOMESTIC & STEAM COAL

Cleveland. Ohio

VESSELS SUPPLY STORE.

SPIEGLE BROS.

MARINE SUPPLY STORE

WHOLESALE AND RETAIL

Grocers. Bakers and Ship Supplies;

Fresh & Salt Meat of all Kind.

30 & 32 River-st., opposite Detroit Steamboat Landing, and 184 Broadway. Telephone 112,
CLEVELAND, OHIO.

SHIP AHOY!

WHEN YOU ARRIVE AT SARNIA BE SURE TO CALL AT

CAPT. A. E. McGREGOR'S, FRONT ST.,
FOR GROCERIES AND PROVISIONS;
ALSO, AT
W. A. BUCHNER'S, OPP. CITY HALL
for Fresh and Cured Meats, Ice, etc. Prompt delivery. Open day and night.

A. E. McGREGOR, Grocer. **W. A. BUCHNER,** Butcher.

S. B. GRUMMOND,

OWNER OF FIRST-CLASS

Tugs for Wrecking, Raft Towing, Etc.

ALSO, 16 STEAM PUMPS, ROTARY AND WORTHINGTON.

Improved Horizontal Straight Base Hydraulic Jacks.

Sub-marine Divers, Hawsers, Lighters, Etc.

WAREHOUSE AND OFFICE ON DOCK, BET. FIRST AND CASS STS,

OWNER OF TUGS 'Winslow,' "Leviathan,' 'M. Swain,' 'Champion,' 'Wm. A. Moore,' and 'Oswego. } **Detroit, Mich.**

☞ OFFICE OPEN DAY AND NIGHT. SATISFACTION GUARANTEED. ☜

BRANCH OFFICES at PORT HURON & CHEBOYGAN, MICH

WRECKING TUG

LEVIATHAN, CAPT. M. SWAIN, STATIONED AT CHEBOYGAN

HOWARD H. BAKER & CO.,

Ship Chandlers & Sail Makers.

WHOLESALE AND RETAIL DEALERS IN

Cordage, Wire Rope Blocks, Canvas, Anchors, Chains, Paints, Oils, Naval Stores, etc.

Cylinder, Lard, Signal and Lubricating Oils a Specialty.

AGENTS FOR THE

American Ship Windlass Company for Lakes Erie and Ontario.

IMPORTERS OF NAUTICAL INSTRUMENTS OF EVERY DESCRIPTION.

We carry a larger assortment of goods in our line than any other house in the trade and can not be undersold.

Call at Our Mammoth Store and See for Yourselves.---18, 20, 22, 24 & 26 Terrace,

BUFFALO, NEW YORK.

The J. P. Donaldson Co.,

Ship Chandlers,

SAIL MAKERS AND RIGGERS,

Manufacturers of OARS and OAR LOCKS, Dealers in

Cotton Duck, Wire Rope, Cordage, Etc.

22 and 24 Woodward Ave.,

DETROIT, MICH.

D. S. AUSTIN. EMMET AUSTIN.

D.S. AUSTIN & CO.

Ship Chandlers & Sail Makers.

WHOLESALE AND RETAIL DEALERS IN

Cotton Duck, Cordage, Wire Rope, Oakum, Pitch, Tar, Paints, Oils, etc.

Complete Outfits of Sails, Rigging, etc., for Vessels and Steamers, furnished on short notice and at as low prices as any one on the Lakes.

Ft. of Washington St., BUFFALO, N. Y.

GEO. D. FINNEY. JAS. CHANNON

Finney AND Channon,

Ship Chandlers & Sail Makers,

Manila, Hemp and Wire Rigging

Blocks, Anchors, Chains, Paints, Oils, etc.

Special Attention Given to Out-fits and Repairs.

270 and 272 South Water St.,

CHICAGO, - - ILLINOIS.

J. W. GROVER & SON,

SHIP CHANDLERS

SAIL MAKERS AND RIGGERS,

IMPORTERS AND WHOLESALE DEALERS IN

Wire Rope, Manila and Tarred Cordage, Canvas, Blocks, Oakum, Tar, Pitch, Oars, Anchors, Chains, etc.

117 & 119 RIVER ST., & 134 & 135 DOCK,
CLEVELAND, OHIO.

H. L. SHAW,

EAST SAGINAW, - - - MICH.,

VESSEL BROKER, AGENT AND OWNER

Special attention given to charters for the LUMBER COAL AND STONE TRADE.

Vessel property and machinery bought, sold and exchanged. If you have anything to sell or want to buy write me; no commission unless sale is made.

MARINE COLLECTIONS PROMPTLY ATTENDED TO.

Tugs and Lighters always on hand. Correspondence solicted.

Cleveland Block Co.,

MANUFACTURERS OF

Iron Tackle Blocks

TAKING THE PLACE OF WOODEN BLOCKS FOR ALL PURPOSES.

159 River St., CLEVELAND, O.

ROPE NETTING

For Steamers and Steam Yachts a Specialty.

E. A. EVANS, Rigger,

193 South St., New York.

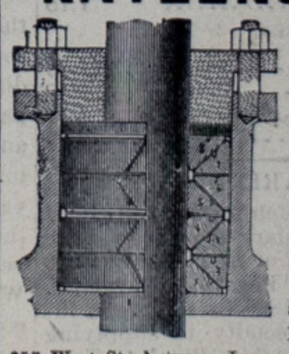
WM. H. RADCLIFFE,

Shipbuilder and General Repairing.

OLD RIVER BED, Ft. OF TAYLOR St.,

CLEVELAND, O.

KATZENSTEIN'S



SELF-ACTING METAL PACKING

FOR PISTON RODS, VALVE STEMS, Etc.

Adopted and in use by the principal Iron Works and Steamship Companies within the last eight years in this and Foreign countries. Also flexible tubular metallic packing for slip-joints on steam pipes and for hydraulic pressure. For full particulars and references address

L KATZENSTEIN & CO
357 West St., between Leroy and Clarkson-st, N. Y.

CAPT. THOS. WILSON, who uses this packing on his Steamers, and THE MARINE RECORD are Agents for Cleveland and the Lakes.

McKINNON BROS.

Ashtabula Harbor, O.,

Machinists, Shipsmiths & Steamfitters;

ALSO, DEALERS IN

Engineers' Supplies, Lubricating and Burning Oils.

BUSINESS PROMPTLY ATTENDED TO.

A. H. MILLS'

Harbor and River Tug Line

Detroit, Mich.

Office No. 8, Foot of Woodward Ave., on the Dock.

Telephone No. 508.

Tugs Shoo Fly, Dave & Mose, Challenge.

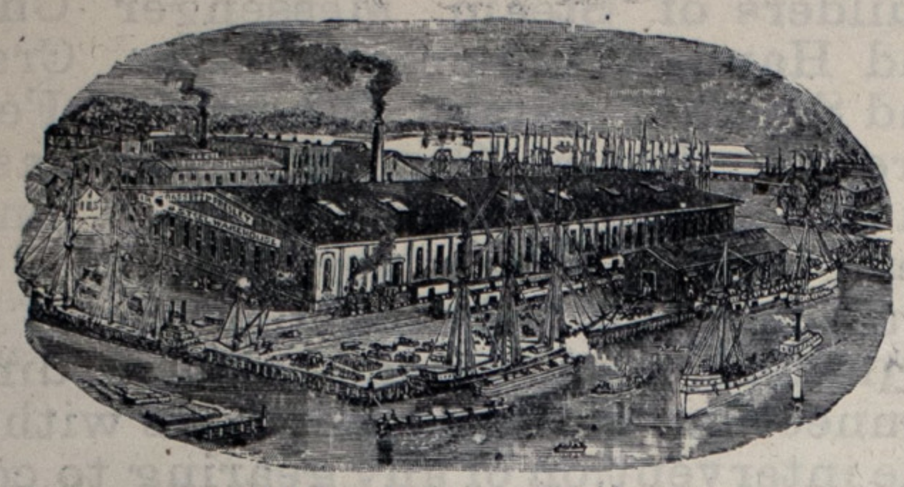
Steam Pumps and Divers on Short Notice.

IRA B. BASSETT. GEORGE PRESLEY, Jr.

BASSETT & PRESLEY,

[Successors to W. H. McCurdy & Co.]

Office and Warehouse, cor. Elm & Hemlock Streets, Cleveland, O.



WHOLESALE DEALERS IN

BAR, BOILER, HOOP, ANGLE AND SHEET IRON

Nails, Railroad and Boat Spikes, Boiler, Tank and Cooper Rivets, Swedes Iron, Boiler Tubes, Nail Rods, Etc., Etc., Etc.

We Represent in this Market the Following Well-known Manufacturers:

Andrews Bros. & Co. .....Youngstown, O. BAR IRON AND POLISHED SHAFTING.	Dilworth, Porter & Co., Limited..Pittsburg, Pa. RAILROAD AND BOAT SPIKE.
Reading Iron Works.....Philadelphia, Pa. BOILER TUBES.	Hoopes & Townsend,.....Philadelphia, Pa. BOILER AND TANK RIVETS.
Central Iron Works.....Harrisburg, Pa. BOILER PLATES.	Sanderson Bros. Steel Co,.....Syracuse, N. Y. CAST STEEL.
Lindsay & McCutcheon,.....Pittsburg, Pa, HOOP, BAND & STAR HORSESHOE IRON.	Joseph Corns & Sons ....Massillon, O. CROWN STAY BOLT IRON.
George W. Johnson,.....Newcastle, Pa. TANK SHEET IRON.	Pencoyd Iron Works,.....Philadelphia, Pa. ANGLE IRON.

A Complete Stock of all above Goods in Our Warehouse.

SAMUEL F. HODGE & CO.,

MANUFACTURERS OF

MARINE,

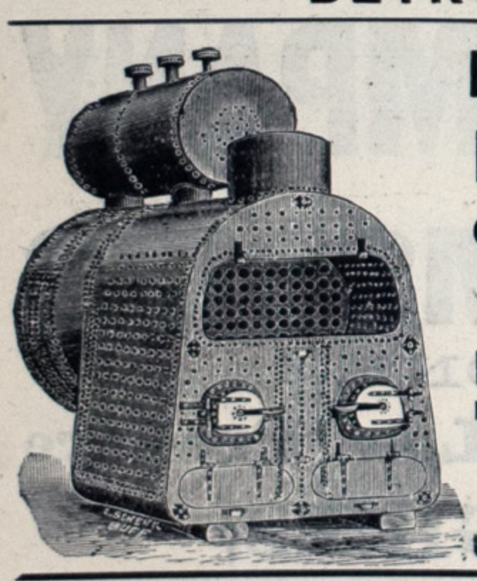
Stationary & Portable Engines,

MINING MACHINERY AND

PROPELLER WHEELS,

Riverside Iron Works, 314 to 326 Atwater Street,

DETROIT, MICH.



EAGLE BOILER WORKS,

M. RITER, Prop'r,

Cor. Indiana & Mary St.,

BUFFALO, N. Y.

MANUFACTURER OF

High and Low Pressure

Marine, Stationary, Portable, Locomotive and Upright Boilers; also, Salt Pans, Smoke Pipes and Heavy and Light Plate Iron Work of all Descriptions.

REPAIRS PROMPTLY ATTENDED TO.

O. & P. COAL CO. & THOS. AXWORTHY.

FUEL DEPARTMENT.

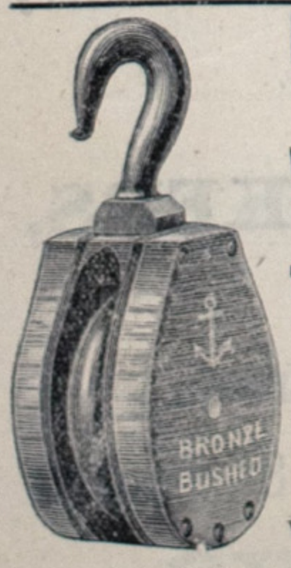
PRESLEY, ARTHUR & CO., AG'TS.

Steamboats, Tugs, etc, Coaled Day and Night.

DEALERS IN LACKAWANNA ANTHRACITE COAL.

Docks: Ft. West River St., Whisky Island, C. P. R'y. Slip, Government Pier

OFFICE 130 RIVER-ST., CLEVELAND, OHIO.



Improved Cargo Block

FILLS A LONG KNOWN WANT.

Whole Inside of Shell Lined With Lignum Vitae to Protect Rope.

THE GRAIN OF SHELL RUNS ACROSS

Inclined at Up and Down, Preventing Cheek from Splitting

Sheave Bushed With

Phosphor Bronze and Self-Lubricating.

ORDER SAMPLE OR WRITE FOR PRICES.

Penfield Block Company,

LOCKPORT, N. Y.

N. B.—If you hoist with Wire Rope ask us about the New Improved Wrought Iron Block.

ST. MARY'S, OHIO. MONTPELIER, OHIO. } OAR MILLS. NEPTUNE ANCHOR WORKS

DEGRAUW, AYMAR & CO.,

MANUFACTURERS AND IMPORTERS OF

CORDAGE, OAKUM, WIRE ROPE,

CHAINS, ANCHORS, OARS, BLOCKS

COTTON AND FLAX DUCKS, FLAGS

BUNTINGS, RUSSIA BOLT ROPE,

MARINE HARDWARE AND SHIP-CHANDLERS' GOODS GENERALLY.

Nos. 34 AND 35 SOUTH STREET, NEW YORK.

A PUZZLE.

Which Man is the Tallest?

If you measure carefully the figures in above Cut you will find the man who appears the shortest is in reality the tallest. If you will coal your boat at my dock, adjoining S. F. Hodge Iron Works, you will get better dispatch and better COAL than at any other place in the city.

O. W. SHIPMAN,

OFFICE:

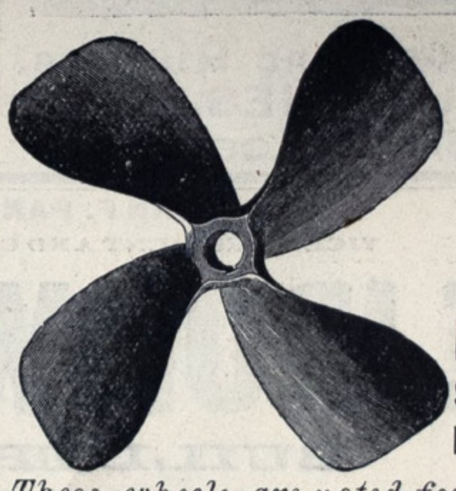
Cor. Griswold and Larned Sts.

H. G. TROUT,

KING IRON WORKS,

BUFFALO, N. Y.,

MANUFACTURER OF



Triple Expansion Marine Engines,

Three Cylinder and Fore and Aft and Steeple Compound Marine Engines,

High and Low Pressure Engines,

SECTIONAL PROPELLER WHEELS,

PROPELLER, TUG & YACHT WHEELS

These wheels are noted for their extra speed and towing power, or aproportionate saving of coal.

PRICES QUOTED ON APPLICATION.

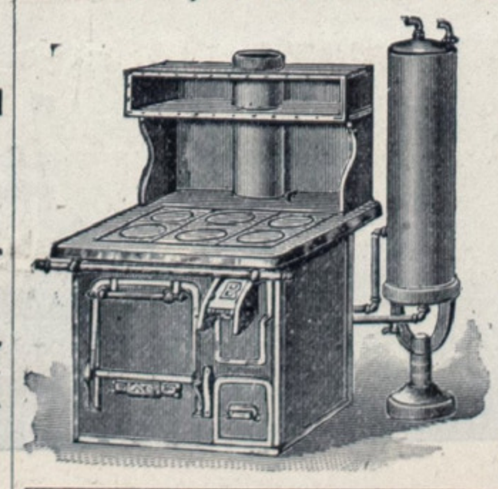
F. & H. BORN,

MANUFACTURERS OF

STEEL PLATE FRENCH RANGES

For Steamboats and Vessels,

Hotels, Restaurants and Private Families.



The Best Material Used

EVERY RANGE WARRANTED PERFFCT.

Adapted for Hard or Soft Coal, Coke or Wood.

Broiler and High Hot Closet and Steam Table Attached.

BORN'S STEEL PLATE FRENCH RANGES are now in use on many Vessels and Steamboats, the owners of which testify to their durability, economy of fuel, conveniance and elegance of finish.

F. & H. BORN,

128 Superior st., CLEVELAND, O.

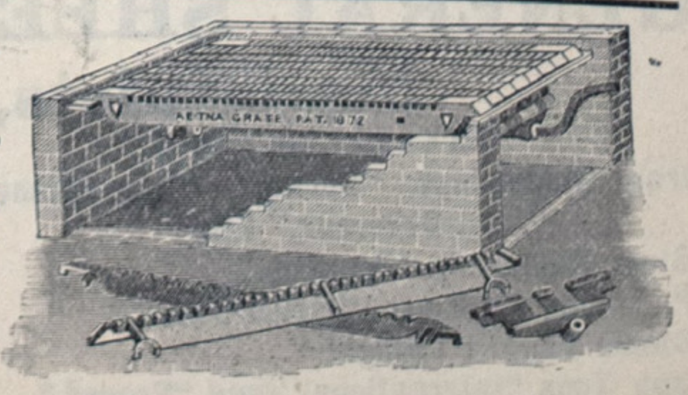
THE ÆTNA GRATE.

G. C. BARNES, Agt.

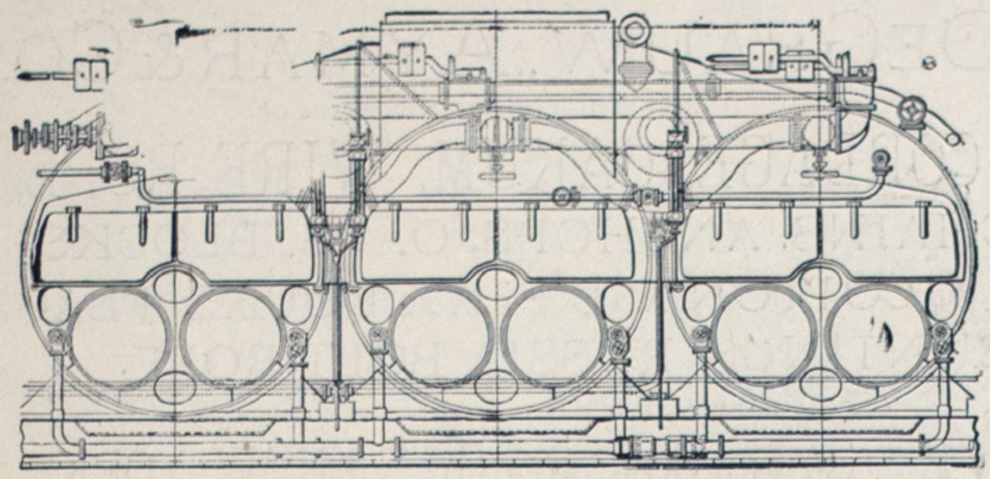
This Improved Shaking Grate Especially Adapted to Burning Slack.

Globe Iron Works, Manufac's.,

Office and Foundry, corner of Elm and Spruce-sts., CLEVELAND, O.



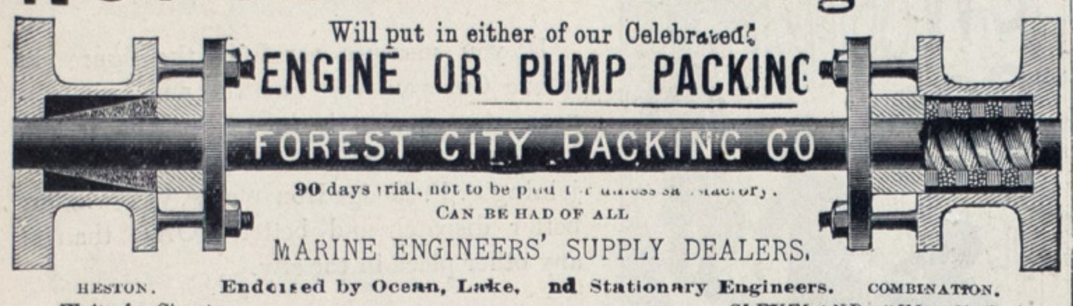
LAKE ERIE BOILER WORKS.



The best equipped plant in America for the manufac ture of Modern Marine Boilers

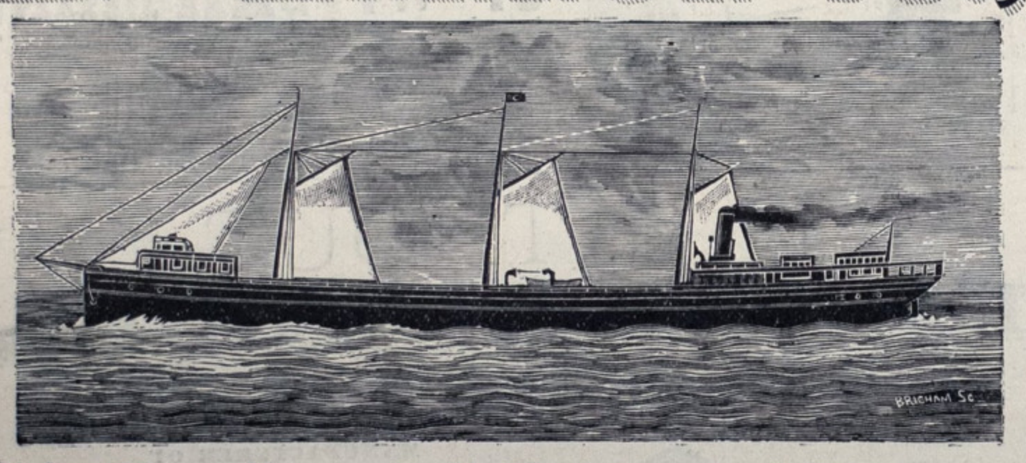
BUFFALO, NEW YORK

NOTICE--To Marine Engineers


Will put in either of our Celebrated
ENGINE OR PUMP PACKING
FOREST CITY PACKING CO
90 days trial, not to be paid for unless satisfactory.
CAN BE HAD OF ALL
MARINE ENGINEERS' SUPPLY DEALERS.

HESTON. Endorsed by Ocean, Lake, nd Stationary Engineers. COMBINATION.
Write for Circular. CLEVELAND, OHIO, U. S. A

H. CHANNON CO.,



Ship Chandlers, Sail Makers and Riggers.
STEAM-BOAT SUPPLIES.
22 to 26 Market-St., near Randolph-St., Chicago, Ill's.

Established in 1857.

AMERICAN SHIP WINDLASS CO.,

Builders of Steam, Messenger Chain and Hand Windlasses, Power, Crank and Steam Capstans, Wharf and Ferry Drops. Their Capstan Windlasses have a Power Capstan with a single head which has power and speed arrangement entirely independent of the Windlass, and which makes a direct connection with the Windlass without the intervention of any gearing to complicate it and inc ease the friction.

In all their styles of Steam Windlasses they make a direct connection between the engines and the windlass without counter shafts or additional g aring. This saves friction and liability to break down, and conduces to durability and ease in operating. They also have a counterbalance for the engines and an automatic lubricator for worm and worm gear. and the engines are placed together in the most accessible position. The above improvements and others too numerous to mention, but which are familiar to Masters, Owners and Builders, are covered by Patents owned exclusively by this Company. For plans and information

Address,

FRANK S. MANTON, Agent. P. O. box 53, Providence, R. I.

H. M. HANNA, PRESIDENT. JOHN F. PANKHURST, VICE PRESIDENT AND GENERALMANAGER. LUTHER ALLEN, SECRETARY AND TREASURER

THE GLOBE IRON WORKS COMPANY

BUILDERS OF

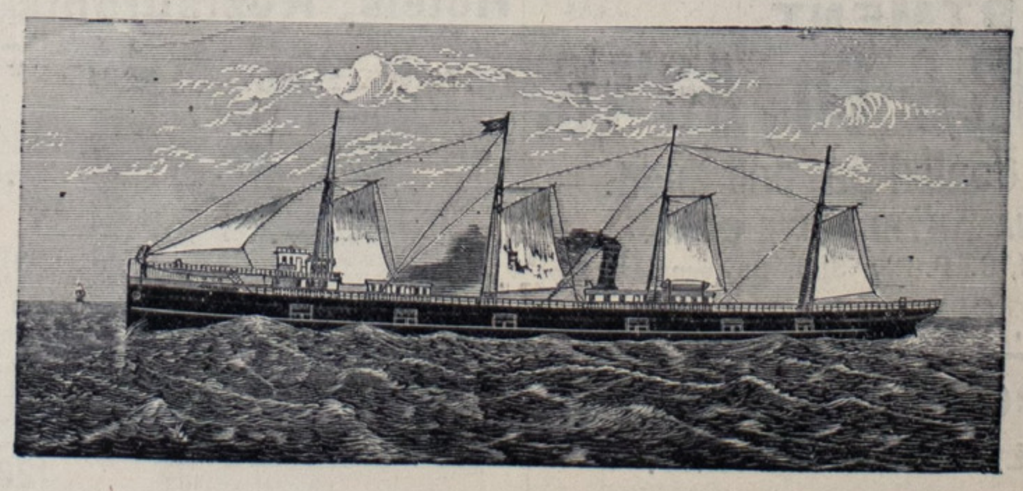
IRON AND STEEL STEAMSHIPS

AND VESSELS OF ALL DIMENSIONS,

Triple Expansion, Compound, High Pressure and Low Pressure

MARINE AND STATIONARY ENGINES,
MARINE, STATIONARY & PORTABLE BOILERS.

Blast Furnace and Rolling Mill Machinery, Hoisting and Pumping Engines, Portable Hoisting Engines.



Steam Pumps, Steam and Hand Windlasses, Winches, and Marine Appliances of Every Description.

GENERAL SHEET AND PLATE IRON WORKERS,
Machinists, Boiler-Makers and Founders.

Builders of
Iron Steamships "Onoko," "Wm. Chisholm," "J. H. Devereux," Etc.
Steel Steamship "Spokane."
Passenger Steamer "Darius Cole."
Steam Yacht "Twilight."
Iron Tugs "International" and "Record."

OFFICE & WORKS, Spruce and Elm Streets.
IRON SHIP YARD, Old River Bed, foot of St. Paul St

CLEVELAND, OHIO.